R307. Environmental Quality, Air Quality.
R307-353. Plastic Parts Coatings.
R307-353-1. Purpose.

The purpose of this rule is to limit volatile organic compound (VOC) emissions from [~~automobile, truck, and business machine~~]the application of coatings to any plastic product [~~part coating lines~~].

R307-353-2. Applicability.

[~~R307-353 applies to automobile, truck, and business machine plastic part coating line operations, including related cleaning activities, that have the potential to emit 2.7 tons per year of VOCs and that are located in Box Elder, Cache, Davis, Salt Lake, Tooele, Utah and Weber counties.~~]

(1) R307-353 applies to sources located in Cache, Davis, Salt Lake, Utah and Weber counties that have the potential to emit 2.7 tons per year or more of VOC, including related cleaning activities.

(2) In Box Elder and Tooele counties, R307-353 applies to the following sources:

(a) Existing sources as of February 1, 2013 with the potential to emit 5 tons per year or more of VOC, including related cleaning activities; and

(b) New sources as of February 1, 2013 that have the potential to emit 2.7 tons per year or more of VOC, including related cleaning activities.

R307-353-3. Exemptions.

(1) The provisions of this rule shall not apply to any of the following:

(a) Stencil coatings;

(b) Safety-indicating coatings;

(c) Electric-insulating and thermal-conducting coatings;

(d) Magnetic data storage disk coatings;

(e) Plastic extruded onto metal parts to form a coating; and

[~~(f) Touch-up coatings;~~

~~(g) Repair coatings; and~~]

([~~h~~]f) Textured finishes.

(2) If a coating line is subject to the requirements for existing automobile, light-duty truck, and other product and material coatings or for existing metallic surface coating lines, the coating line shall be exempt from this rule.

R307-353-4. Definitions.

The following additional definitions apply to R307-35[~~0~~]3:

"Air dried coating" means coatings that are dried by the use of air or a forced warm air at temperatures up to 194 degrees Fahrenheit.

"Baked coating" means coatings that are cured at a temperature at or above 194 degrees Fahrenheit.

"Coating" means a protective, functional, or decorative film applied in a thin layer to a surface. This term often applies to paints such as lacquers or enamels. It is also used to refer to films applied to paper, plastics, or foil.

"Electric-insulating and thermal-conducting" means a coating

that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot-degree-Fahrenheit.

"Magnetic data storage disk coating" means a coating used on a metal disk which stores data magnetically.

"Metallic coating" means a coating which contains more than 5 grams of metal particles per liter of coating as applied.

"Military specification coating" means a coating which has a formulation approved by the United States Military Agency for use on military equipment.

"Mirror backing" means the coating applied over the silvered surface of a mirror.

"Mold-seal coating" means the initial coating applied to a new mold or a repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold.

"Multi-colored coating" means a coating which exhibits more than one color when applied, and which is packaged in a single container and applied in a single coat.

"Multi-component coating" means a coating requiring the addition of a separate reactive resin, commonly known as a catalyst, before application to form an acceptable dry film.

"One-component coating" means a coating that is ready for application as it comes out of its container to from an acceptable dry film. A thinner necessary to reduce the viscosity is not considered a component.

"Optical coating" means a coating applied to an optical lens.

"Primer" means a coating applied to a surface to provide a firm bond between the substrate and subsequent coats.

"Repair coating" means a coating used to recoat portions of a part or product which has sustained mechanical damage to the coating.

"Roller Coated" means a type of coating application equipment that utilizes a series of mechanical rollers to form a thin coating film on the surface of a roller, which is then applied to a substrate by moving the substrate underneath the roller.

"Safety-indicating coating" means a coating which changes physical characteristics, such as color, to indicate unsafe condition.

"Stencil coating" means an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters or numbers to metal parts and products.

"Textured finish" means a rough surface produced by spraying and splattering large drops of coating onto a previously applied coating. The coatings used to form the appearance of the textured finish are referred to as textured coatings.

"Touch-up coating" means a coating used to cover minor coating imperfections appearing after the main coating operation.

"Topcoat" means the last film-building finishing material applied in a finishing system. Non-permanent final finishes are not topcoats.

R307-353-5. Emission Standards.

(1) For automobile and truck plastic parts coating lines:

(a) Each owner or operator shall not apply coatings with a VOC content in excess of the amounts specified in Table 1 or shall use

an add-on control device as specified in R307-353-[~~7~~]8.
[~~(b Except as provided for in R307-353-3, any coating that is subject to an emission rate specified in Table 1 shall not be applied with conventional air-atomizing spray equipment. All spray equipment shall be installed, maintained, and operated in accordance with the recommendations and design of the equipment manufacturer.)~~]

([~~c~~]b) For red and black coatings, the emission limitation shall be determined by multiplying the appropriate limit in Table 1 by 1.15.

([~~d~~]c) When Method 24 is used to determine the VOC content of a high bake coating, the applicable emission limitation shall be determined by adding 0.5 to the appropriate limit in Table 1.

([e]d) When Method 24 is used to determine the VOC content of an air-dried coating, the applicable emission limitation shall be determined by adding 0.1 to the appropriate limit in Table 1.

TABLE 1

AUTOMOBILE AND TRUCK PLASTIC PARTS COATING LINES
(values in pounds of VOC per gallon of coating, minus water and exempt solvents (compounds not classified as VOC), as applied)

COATING CATEGORY	VOC EMISSION RATES
High bake coating - exterior & interior parts	
Prime	
Flexible coating	4.5
Nonflexible coating	3.5
Topcoat	
Basecoat	4.3
Clearcoat	4.0
Non-basecoat/clearcoat	4.3
Air-dried coating - exterior parts	
Prime	4.8
Topcoat	
Basecoat	5.0
Clearcoat	4.5
Non-basecoat/clearcoat	5.0
Air-dried coating - interior parts	5.0

Touch-up and repair	5.2

(2) [~~For business machine plastic parts coating lines: (a)~~]Each owner or operator of a business machine plastic parts coating line shall not apply coatings with a VOC content in excess of the amounts specified in Table 2 or shall use an add-on control device as specified in R307-353-[~~7~~]8.

[(b) ~~Any prime or topcoat coating that is subject to the emission rate specified in Table 2 shall not be applied with air-atomizing spray equipment. All spray equipment shall be installed, maintained, and operated in accordance with the recommendations and design of the equipment manufacturer.~~]

TABLE 2

BUSINESS MACHINE PLASTIC PARTS COATING LINES
(values in pounds of VOC allowed to be emitted per gallon of coating, minus water and exempt solvents (compounds not classified as VOC)), as applied)

COATING CATEGORY	VOC EMISSION RATES
Prime	2.9
Topcoat	2.9
Texture coat	2.9
Fog coat	2.2
Touch-up and repair	2.9

TABLE 3

OTHER PLASTIC PRODUCT COATING CATEGORIES
(values in pounds of VOC allowed to be emitted per gallon of coating, minus water and exempt solvents (compounds not classified as VOC), as applied))

COATING CATEGORY	VOC EMISSION RATES
General One-Component	2.3
General Multi-Component	3.5
Electric Dissipating Coatings And Shock-Free Coatings	3.0
Extreme Performance	3.5 (2-pack coatings)

Metallic	3.5
Military Specification	2.8 (1 pack) 3.5 (2 pack)
Mold-Seal	6.3
Multi-colored Coatings	5.7
Optical Coatings	6.7
Vacuum-Metalizing	6.7
Mirror Backing	
Curtain Coated	4.2
Roll Coated	3.6

([~~3~~]4) If a part consists of both plastic and metal surfaces and is exempted from the requirements for existing metallic surface coating lines, the part shall be subject to this rule.

R307-353-6.Application Methods.

No person shall apply VOC containing coatings unless the coating is applied with equipment operated according to the manufacturer specifications, and by use of one of the following methods:

(1) Electrostatic application;
(2) Flow coat;
(3) Roller coat;
(4) Dip/electrodeposition coat;
(5) Airless Spray;
(6) High-volume, low-pressure (HVLP) spray; or
(7) Other application method equal to or better than HVLP, as certified by the manufacturer.

R307-353-[~~6~~]7. Work Practices and Recordkeeping.

(1) The owner or operator shall:

(a) Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

(b) Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

(c) Clean up spills immediately;

(d) Convey any coatings, thinners, and cleaning materials in closed containers or pipes;

(e) Close mixing vessels that contain VOC coatings and other materials except when specifically in use; and

(f) Minimize usage of solvents during cleaning of storage, mixing, and conveying equipment.

(2) All persons shall perform solvent cleaning operations with cleaning material having VOC content of 0.21 pounds per gallon or less.

([~~2~~]3) [~~The owner or operator shall maintain records from the manufacturer that demonstrate compliance with the emission standards of R307-348-5.~~]All sources subject to R307-353 shall maintain records

demonstrating compliance with all provisions of R307-353 on an annual basis.

(a) Records shall include, but not be limited to, inventory and product data sheets of all coatings and solvents subject to R307-350.

(b) These records shall be available to the director upon request.

R307-353-[~~7~~]8. Optional Add-On Controls.

(1) The owner or operator may install and maintain an incinerator, carbon adsorption, or any other add-on emission control device, provided that the emission control device will attain at least 90% efficiency performance.

(2) The owner or operator of a control device shall provide [~~certification~~]documentation [~~from the manufacturer~~]that the emission control system will attain the requirements[~~d efficiency performance~~] of R307-353-8.

(3) Emission control systems shall be operated and maintained in accordance with the manufacturer recommendations. The owner or operator shall maintain for a minimum of two years records of operating and maintenance sufficient to demonstrate that the equipment is being operated and maintained in accordance with the manufacturer recommendations.

R307-353-[~~8~~]9. Compliance Schedule.

All sources within Box Elder, Cache, Davis, Salt Lake, Tooele, Utah and Weber counties shall be in compliance with this rule by January 1, 2014.

KEY: air pollution, emission controls, coatings, plastic parts
Date of Enactment or Last Substantive Amendment: 2013
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